



DDM Updates & Scheduling

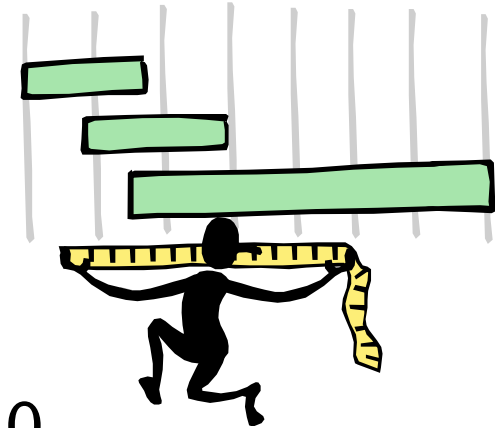
Drainage Stakeholders Meeting

June 26, 2013

Drainage Stakeholder Meetings

► Preliminary Schedule

- July 24, 2013: Chapters 1 and 2
- August 28, 2013: Chapters 1 and 2
- September 25, 2013: Chapters 9 and 10
- October 23, 2013: Other Chapters not previously covered
- November 27, 2013 (Day prior to Thanksgiving)
- January 22, 2014: Draft Recommendations
- February 2014: Final Recommendation to Council



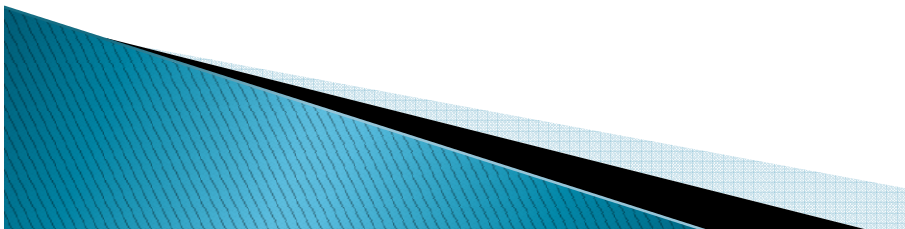
DDM Chapters

- ▶ Chapter 1 – Drainage Policy
- ▶ Chapter 2 – Determination of Storm Runoff
- ▶ Chapter 3 – Street Flow
- ▶ Chapter 4 – Inlets
- ▶ Chapter 5 – Storm Drains
- ▶ Chapter 6 – Open Channels
- ▶ Chapter 7 – Culverts/Bridges
- ▶ Chapter 8 – Stormwater Management
- ▶ Chapter 9 – Erosion and Sediment Control
- ▶ Chapter 10 – Post Construction

<http://www.killeentexas.gov/index.php?section=281>

Chapter 9 Erosion & Sediment Control Compliance

- ▶ Current Texas Parks & Wildlife and Texas Historical Commission Lists
- ▶ Natural Resources map
- ▶ Identify Creek Buffer Zones and Special Flood Hazard Areas
- ▶ Identify Receiving Waters Correctly by Name
- ▶ Anticipated Benchmark Dates for Activities
- ▶ Stockpiles – Location & Best Management Practices
- ▶ Appropriate Best Management Practices



Submitted Concerns To Date

▶ General Comments

- 50 year design for low points not in Special Flood Hazard Areas reduced to 25 year design
- Need clarification that both existing and post development calculations should be part of submittals
- Requirements for private drainage features, private drainage infrastructure and private drainage easements
- Usage of capacity that was designed as a safety factor in an original design

Submitted Concerns To Date (cont.)

▶ Chapter 1 Drainage Policy

- Section 1.2.3: Reported that when the cross slope is less than 2% that trying to achieve a crown elevation no lower than 2-inches below the top of curb is hard to obtain.
- Section 1.2.6.D.3: Fence requirement based on depth not included
- Section 1.2.7: Requirement for evaluation of impact to upstream areas not included
- Section 1.2.9: Need clarification as to when LOMR is required, what calculations to submit, and application to ETJ areas

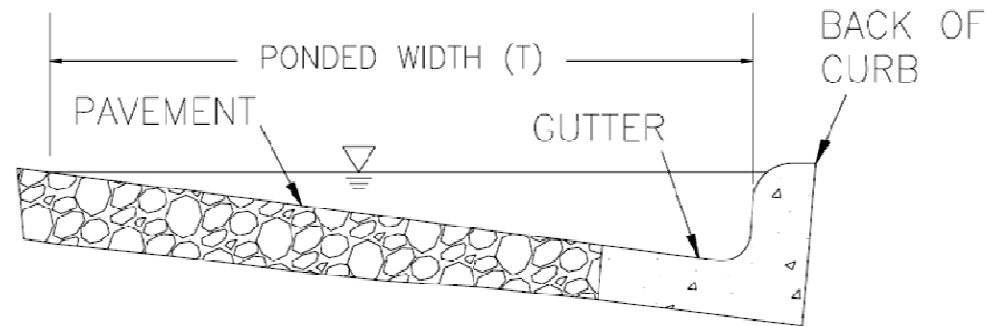
Submitted Concerns To Date (cont.)

- ▶ Chapter 2 Determination of Storm Runoff
 - Section 2.2.1.A: Why limit analysis of upstream areas to existing conditions for only channel design purposes
 - Sections 2.4 and 2.5: Minimum Time of Concentration (6 minutes, 10 minutes), Length of Sheet Flow (300ft, 100ft, 50ft)
 - Table 2–7: Need to correct omissions in Table

Adopted Drainage Policy

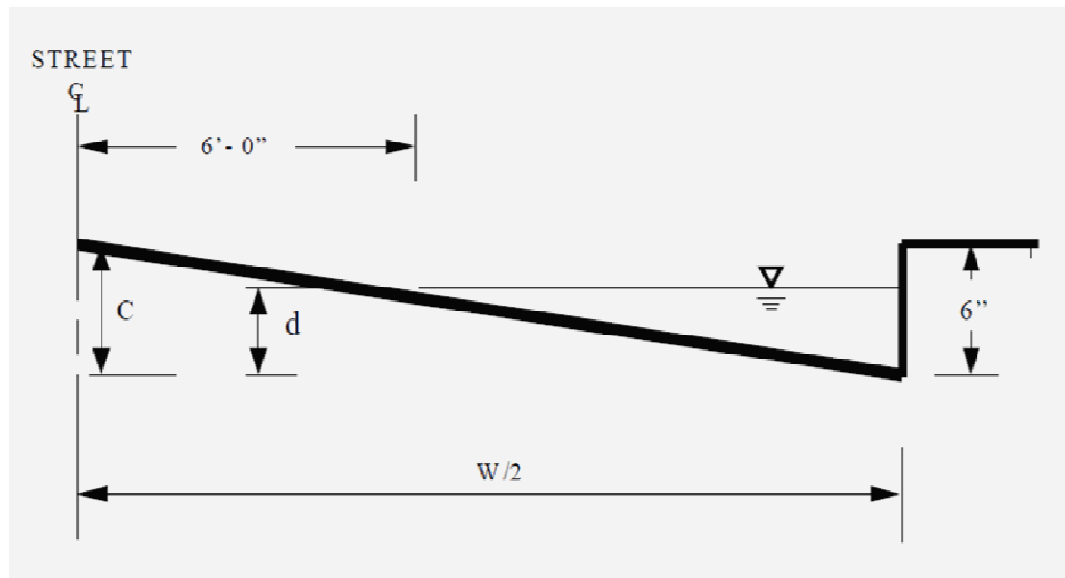
- ▶ **Computational requirements for submittals**
- ▶ Street drainage designed for the 25-year frequency storm allowed **0"** over top of curb and 100-year contained in ROW
- ▶ Stormwater detention shall not increase discharge for the 25-year frequency storm
 - Establishes stormwater detention safety and maintenance criteria
 - Detention outflow must establish sheet flow
 - No concentrated flow discharges to street
 - Drainage facilities require access for maintenance

Street Sections (nts)

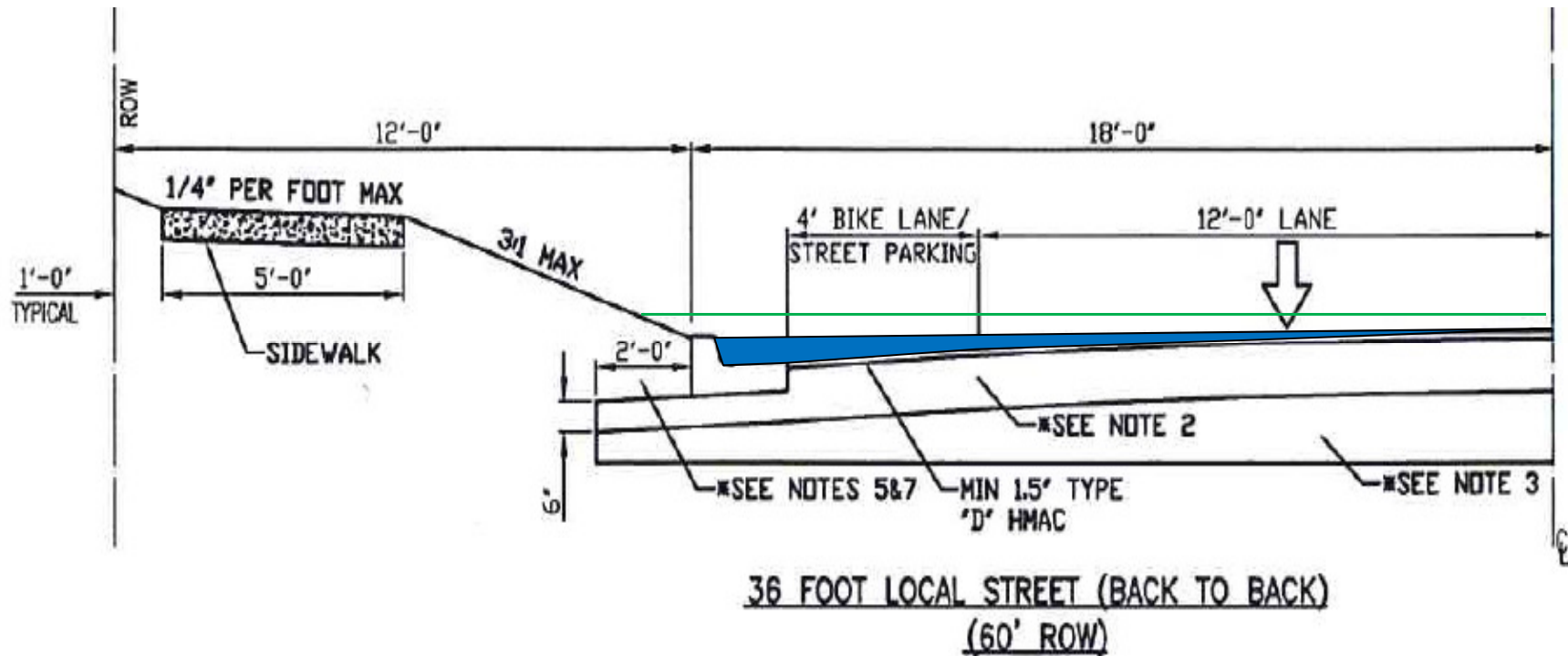


Curb and Gutter Section

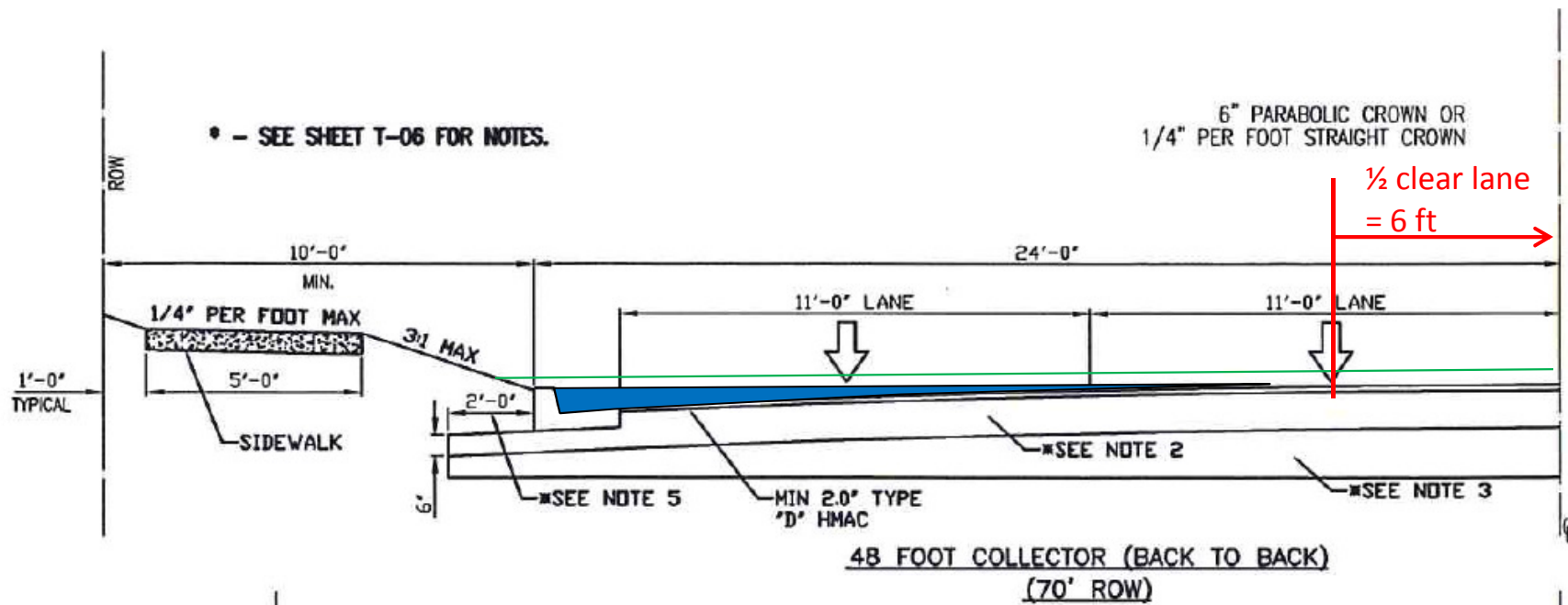
6" = curb height at gutter
 6' = $\frac{1}{2}$ of the required
 clear lane width
 C = crown height
 d = allowable depth of
 water based on clear
 width limits
 W = total width of street
 CL = centerline of street



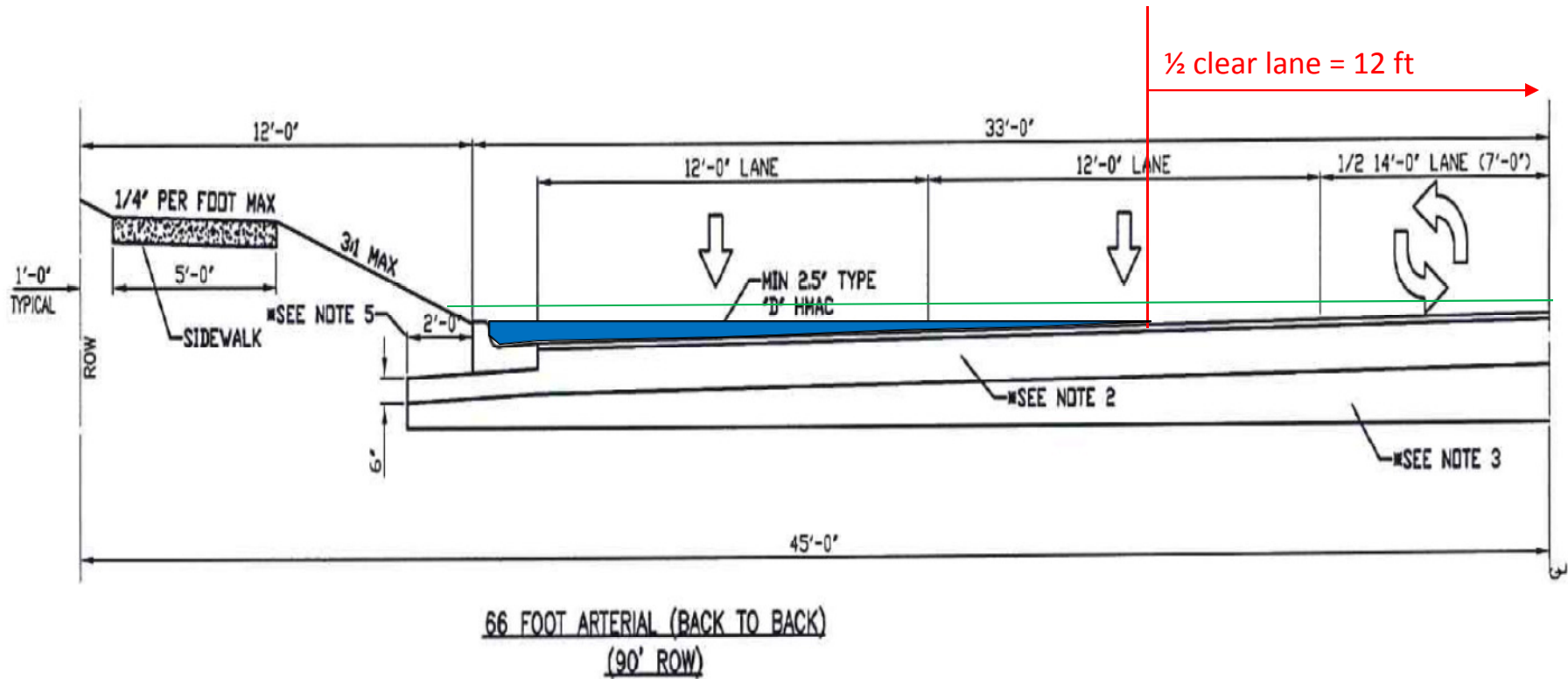
Street Sections (nts)



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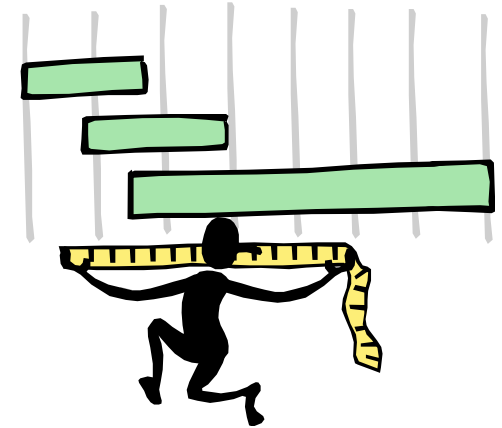
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